

Name: _____

Show all your work!

1. (7 pts.) Fill in the gaps in the following table. Each column may represent a neutral atom or an ion.

Symbol	$^{197}_{79}\text{Au}^{3+}$		
Protons			28
Neutrons			
Electrons			26
Atomic Number		18	
Mass Number		40	58
Charge		0	

2. (10 pts) A hydrogen atom undergoes an electron transition from **n=5 to n=3**. (a) Does this transition correspond to absorption or emission of energy? (b) Determine the wavelength of light associated with this transition. (c) Identify the region of the electromagnetic spectrum to which it belongs.

3. (7pts) Fill in the gaps in the following table.

Name	Formula
sodium nitrite	
	NH_4NO_3
xenon difluoride	
	Na_2CO_3
HF	
	NO_2
phosphorus trichloride	
	KCl
cobalt (II) bromide	
	HNO_3
lithium iodide	
	$\text{Fe}(\text{OH})_3$
carbon dioxide	
	$\text{Cr}(\text{ClO}_4)_3$

